OCR

INFORMATION REPORT INFORMATION REPORT

CENTRAL INTELLIGENCE AGENCY

C-O-N-F-I-D-E-N-T-I-A-L 25X1

COUNTRY	Poland	REPORT	
SUBJECT	Water Pollution and Purification	DATE DISTR.	26 SEP 1958
		NO. PAGES	1
		REFERENCES	RD
DATE OF INFO.			25X1
PLACE & DATE ACQ.			25X1

SOURCE EVALUATIONS ARE DEFINITIVE. APPRAISAL OF CONTENT IS TENTATIVE.

1. A report containing information on the pollution of drinking water in Poland Specific examples are given of areas which were affected, the causes of pollution, and the problems of purification. 25X1

2. 25X1

C-O-N-F-I-D-E-N-T-I-A-L

A

STATE	#X	ARMY	#X	NAVY	X	AIR	#X	FBI		AEC						

(Note: Washington distribution indicated by "X"; Field distribution by "#".)

INFORMATION REPORT INFORMATION REPORT

25X1

CONFIDENTIAL THIS IS UNEVALUATED, ADVANCE INFORMATION

25X1

WATER POLLUTION AND PURIFICATION IN POLAND (C)

25X1

Summary: This report presents information on drinking water pollution and the problems of purification in Poland. Specific examples are given of the areas which were affected by pollution, the cause or source of pollution, and the action taken to purify the water. Also included is some information on two organizations in Poland which collaborated in attempting to solve the drinking water problem: the Upper Silesian Industrial Area Committee (Komitet, Gorno-Slaskiego Okregu Przemyslowego), and the Bureau of Water Purification (Inspekcja Oczyszczenia Wod).

25X1

25X1

CONFIDENTIAL

25X1

WATER POLLUTION AND PURIFICATION IN POLAND (C)

25X1

Introduction

Immediately after WW II all efforts and resources were channeled toward industrialization and reconstruction. The government, completely engrossed in this program, sacrificed well-integrated plans for expedient measures, to save time and to meet the annual and multiyear plans. A perfect example of peripheral effects of such expedient methods were the effects of industrialization on water pollution.

From 1945 to 1952, the time of accelerated industrialization in Poland, the government paid little attention to water purification. The existing water facilities were in critical need of repair, and because of the lack of maintenance during the German occupation they were generally inadequate to handle even the population's needs. New factories, with few exceptions, used the existing water facilities which overtaxed the water nets and often led to water rationing. Waste from the new factories was disposed of by the most expeditious means which too often meant that it was dumped into rivers with no attempt at purification or neutralization.

characteristic of all Communist countries, the tempo of industrialization had far surpassed the tempo of cultural development in Poland. 25X1

The following is a list of coordinates for locations referred to in this report:

Location	Geographic Coordinates	UTM Coordinates
BRZESZCZE	N49-59, E19-09	CA-6840
CHORZOW	N50-19, E18-59	CA-5675
GOCZALKOWICE	N49-57, E18-59	CA-5234
KLUCZE	N50-20, E19-34	CA-9877
MIELEC	N50-17, E21-25	EA-3071
NOWE TYCHY	N50-07, E18-57	CA-5354
OSWIECIM	N50-03, E19-15	CA-7344
OTWOCK	N52-08, E21-19	EC-1973
PAPROCANY	N50-06, E19-00	CA-5752
SANDOMIERZ	N50-41, E21-45	EB-5315
STRUMIEN	N49-55, E18-46	CA-395320
SWIERK	N52-07, E21-21	EC-235738
TRZEBINIA	N50-09, E19-27	CA-9057
WALBRZYCH	N50-46, E16-17	WS-9125
WIELKIE HAJDUKI	N50-16, E18-57	CA-515720
ZYDOWCE (SYDOWSAUE)	N53-21, E14-35	VV-721119

CONFIDENTIAL

CONFIDENTIAL

25X1

1. Pollution and Purification of Water in Silesia

a. Background

From the end of WW II until 1954, Silesia was the scene of the greatest industrialization effort in Poland. During this time, in spite of protests from scientists, doctors, and engineers, the government fostered the industrial expansion in the most expedient way, paying little attention to the tangential effects. The new factories used existing water nets which adversely affected the civilian water supply. As a result, by 1954 all areas of Upper and Lower Silesia rationed water during certain hours or had other restrictions on the use of water. In many cities in Silesia it was not uncommon for the water pressure to be so low that no water would flow above the ground floor. Wells which had served a community for many years dried up because of the lowering water table due to the opening of many new mine shafts. Finally, in 1954, a survey was conducted by the Committee of the Upper Silesian Industrial Area[1] (Komitet Gorno-Slaskiego Okregu Przemyslowego). From this survey, it was determined that 20 percent of the water in Silesia was lost due to broken and leaky piping.

In 1954, about 30 km of water line in WALBRZYCH, suffering from lack of maintenance for many years, finally deteriorated and left the city and surrounding area virtually without water. The government was forced to take emergency action, and although the line was repaired quickly, the problem was brought into the open.

The lowering water table caused many of the existing wells to dry and increased the expense of new wells because of the greater depth required to reach water. Forests throughout the country were cut down for lumber which was needed for the accelerated building program, and the lack of reforestration caused large land areas to dry.

Year after year pure drinking water became progressively more difficult to obtain. The government continued to ignore the problem even though doctors, municipal National Councils, and local health authorities protested. In 1952 and 1953, through several catastrophes, it became apparent that the problem was not confined to one or two localities but was common throughout the country. Strong protests and demonstrations were lodged by the population in various cities throughout Poland and the government was forced to condescend.

The problem still existed in 1957, and although some action was taken there still remained a great deal to be done. There were plans to improve the situation by various methods; however, the lack of money and technological knowledge, [redacted] would make this one of the most important continuing domestic problems in Poland. 25X1

In 1955, a Deputy was appointed to supervise and control water distribution in Silesia (Pelnomocnik Wody Slaskiej). The man appointed as Deputy, SOROKA, (fnu), was Vice Minister of the Ministry of Communal Economy (Ministerstwo Gospodarki Komunalnej). He supervised water rationing in both Upper and Lower Silesia and established two important regulations: new factories or any other new demands for water could not use existing water nets, but had to seek new sources of water; and water which was suitable for drinking could not be used for industrial purposes. He also started a program to encourage factories to install a closed system of water circulation which would greatly reduce the amount of water consumed by industry.

CONFIDENTIAL

25X1

Although a great deal had been done in the Silesian area to improve water conditions by 1957, much remained to be done. 25X1 most of the emergency situations were taken care of, at least for the moment, but it would take a great deal of time and money to bring the situation to a satisfactory standard.

b. Improvements Made in the Silesian area Since 1954

(1) In GOCZALKOWICE

In 1955, a new 300,000,000 cubic-meter-capacity water reservoir was completed (type unknown). The source of water was the Vistula River. 25X1

(2) In PAPROCANY

A new water tank reservoir was built, capacity unknown. The source of water was the Vistula River. 25X1

(3) In STRUMIEN

A new water reservoir was constructed, type and capacity unknown. The source of water was the Vistula River. 25X1

(4) In CHORZOW

A new water reservoir was constructed, type and capacity unknown. A new pumping station was also installed. 25X1

(5) In WALBRZYCH

An additional water system was constructed which included about 10 km of new duct line. 25X1

2. Pollution and Purification of the Vistula River

a. Background

The Vistula River, throughout its entire course, had been used as a source of drinking water for hundreds of years, and not until after WW II were there any problems of pollution. The Vistula River was polluted, as were most other areas in Poland, because of the expedient industrialization program. The waste, dumped into the Vistula River from factories, polluted the water with chemicals which had various effects, such as, discoloration, odor permeation, and poisoning.

b. Affected Areas

(1) KRAKOW

Soon after WW II, chlorination of the city water supply was started in KRAKOW. It was termed necessary because of the waste from the chemical factories in OSWIECIM and WIELKIE HAJDUKI, the cellulose factory in KLUCZE, and the oil refinery in TRZEBINIA. Most of the tributaries of the Vistula in this area were also polluted by the waste of steel mills and coal mines.

CONFIDENTIAL

25X1

In 1954, between BRZESZCZE and KRAKOW, the water became heavily polluted with phenol, mainly from the chemical factories in OSWIECIM and WIELKIE HAJDUKI, and the cellulose factory at KLUCZE. As a result of the chlorination, the phenol in the water combined with the chlorine and formed chlorophenol which gave off such an offensive odor that the water was made unpotable. The population in KRAKOW protested strongly against it and as an expedient the amount of chlorine was reduced. The result was that the offensive odor lessened, but because of the reduction of chlorine, the water was not being purified. About this time, there was an epidemic of influenza in KRAKOW which was blamed on the water. Panic spread throughout the city and the surrounding area and the Krakow National Council made a direct appeal to Premier CYRANKIEWICZ, a native of KRAKOW. Premier CYRANKIEWICZ took immediate action through two Vice Premiers, JEDRYCHOWSKI and JAROSZEWICZ, who were vice premiers of communications and transportation, and heavy industry, respectively. The immediate action was as follows: for two days, all factories were forbidden to dump waste into the Vistula River, after which waste was allowed to be dumped only three hours daily (hours unknown); daily tests were made of the river water to determine its phenol content.

In 1955, a Bureau of Water Purification was established. Its central office was in WARSAW but there were branch offices in KRAKOW and KATOWICE.[2] This bureau was to work cooperatively with the Institute of Hygiene (Instytut Hygieny), subordinate to the Ministry of Health, and the Institute of Public Works (Instytut Gospodarki Komunalnej), subordinate to the Ministry of Communal Economy. A government-supported program of water purification improvement came with the establishment of this bureau. It was mandatory for each factory to have a sanitation engineer who was responsible for waste purification or neutralization. To carry out this program, which often required the installation of costly equipment, the government gave direct grants of money. [redacted] substantial amounts of money (exact amounts unknown) were given to factories in this area by the government from 1955 to 1957. [redacted] in the future a great deal more money would be spent by the government in improving drinking water conditions throughout the country.

25X1

25X1

[redacted] all factories in this area did not use the same method of neutralizing their waste. [redacted] of the factories which dumped phenol into the water as part of the waste, several methods of neutralization were used: some factories extracted the phenol and burned it in tanks; some reclaimed it for reuse; and others piped or hauled it to the Bledowska desert (Pustynia Bledowska). Even with all these improvements, the water in KRAKOW was still unsatisfactory, and in 1955 a new water system was started using the Rudawka River as the source. This new system was completed in 1957. [redacted]

25X1

25X1

(2) SANDOMIERZ

In 1955, there was a second occurrence of water pollution in the Vistula River, this time farther north. Peasants, while working in the fields near the river about 25 km south of SANDOMIERZ, noticed that there were great numbers of dead fish floating in the river. The incident was reported to the authorities in SANDOMIERZ. The city officials, fearing the pollution of their water system, declared a three-day alarm, during which the water was constantly checked from the reported location of the dead fish all the way to SANDOMIERZ. The results of the tests showed that by the time the water reached SANDOMIERZ the cause of the pollution was diluted and the water was pronounced safe. It was further determined that the cause of the pollution was an unidentified acid emitted by the airplane-motor factory in MIELEC (fabryka Mielec). The acid was dumped with the waste in the Wisloka River, a tributary of the Vistula. The only area affected was in and around the point of

CONFIDENTIAL

25X1

concentration where the Wisloka flowed into the Vistula. not know the action taken to prevent another occurrence of pollution in this area or even if anything was done.

25X1

(3) WARSAW

The original water pumping and filtering station and the entire water supply system for WARSAW was built long before WW II by LINDLEY, an English engineer. This system was considered adequate until 1959, when it was thought necessary to chlorinate the water because of the fear of contamination by the waste of the TB hospitals and sanitoriums in OTWOCK, a suburb of WARSAW. The waste from these hospitals and sanitoriums emptied into the Swider River, a tributary of the Vistula River. As far back as 1946, there were plans to improve the sewage systems in OTWOCK and to incorporate a purifying system for the city's waste, but because of the lack of money these plans were never carried out. After the completion of the atomic reactor in SWIERK, there was fear of contamination from the water which the reactor dumped into the Vistula.

25X1

In 1955, the construction of a new central water filter was started in WARSAW. The intake system was buried about three meters in the natural mud and sand of the river bottom through which the water was to be filtered. the Polish engineers considered this system better than any artificial filtering system. this project was to be completed sometime in early 1958.

25X1

In 1955, the Union of Sanitary Engineers (Zwiazek Inzynierow Zdrowotnych) volunteered to donate their time and talents to designing a sewage processing plant for WARSAW. This plant was to process the used water and sewage into fertilizer. The project was to cost 100,000,000 zlotys, was to take four years to build, and was to be completed sometime in 1959. This was not to be a national project but a Warsaw City project. there were no cities in Poland that had such a sewage processing system and that the Union of Sanitary Engineers agreed to sponsor the project because they felt that WARSAW should be the first city to have such modern facilities.

25X1

3. Pollution in Other Areas in Poland

a. JELENIA GORA

In 1954 the Bober River, the source of water for JELENIA GORA, was polluted by a viscose-cellulose factory (Fabryka Wiskozy i Celulozy) located in JELENIA GORA. not recall any of the details except that the situation lasted for about three weeks and created a big scandal.

25X1

25X1

b. SZCZECIN

In 1956, SZCZECIN's water supply was being polluted by two factories, one a paper mill and the other a cellulose factory in ZYDOWCE, a suburb of SZCZECIN. when the water was tested, it was found to contain 40 times more phenol (carbolic acid) than was considered allowable.

25X1

25X1

25X1

c. Olsztyn Voivodship (Wojewodztwo Olsztynskie)

In 1956, after the opening of a plaster-wall-board factory (Fabryka Plyt Pilsnionych) on the lake, Nidzkie Jezioro, the fish in the lake died by the thousands. Because of the great number of lakes in this region, many of which were connected, there was fear of the pollution spreading to the other lakes. Many of the lakes were sources of drinking water. The cause of the pollution was sulphur and phenol dumped into the lake by the wall-board factory. To relieve the situation, several large (dimensions unknown) open basins were bulldozed, into which the waste water was dumped. The water then filtered through the ground and back into the lake. This seemed to relieve the situation, but in 1957 the incident was repeated. there had been no installation of permanent means of neutralizing the factory waste.

25X1

COMMENTS:

1. As early as 1949, this committee was set up to advise the government on the problems arising from industrialization in Silesia. This committee was to work with the Polish Academy of Sciences (Polska Akademia Nauk) in advising the government on these problems. It concerned itself with the following problems: availability of water for drinking and for industrial use; purification of rivers and lakes; protection against terrain sinkage due to old unfilled mine shafts; relocation of population and planning of new cities (NOWE TYCHY, for example); the liquidation of slack wastes from foundries (Haldy szlaki); and smog control. The committee was made up of government officials and scientists who made many good recommendations, but because the government lacked money and interest nothing was done.

2. the government planned to expand this bureau so there would be sub-offices in every major city in Poland. new sub-offices would be established in areas that were seriously affected by water pollution. In this manner over a period of [illegible] there would be sub-offices throughout Poland.

25X1